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WINTER USE PLANS
FINAL ENVIRONMENTAL IMPACT STATEMENT
SUMMARY

for the
Yellowstone and
Grand Teton National Parks
and
John D. Rockefeller, Jr.,
Memorial Parkway

U.S. Department of Interior
National Park Service

2001-001451/NF

Winter Use Plans
Final Environmental Impact Statement
Summary

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John D. Rockefeller, Jr.,
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Prepared by the U.S. Department of Interior, National Park Service in cooperation with the U.S. Forest Service; the States of Idaho, Montana, and Wyoming; and the Counties of Gallatin and Park, Montana, Park and Teton, Wyoming, and Fremont, Idaho.

This document presents and analyzes seven alternatives for winter use management in Yellowstone National Park (YNP), Grand Teton National Park (GTNP), and the John D. Rockefeller, Jr., Memorial Parkway (the Parkway). YNP, encompassing 2.22 million acres, and GTNP, comprising 310,000 acres, form the core of the Greater Yellowstone Ecosystem, described as the last large, nearly intact ecosystem in the northern temperate zone. The approved plan will serve as a management plan for the three national parks.

Alternative G, the preferred alternative, emphasizes clean, quiet access to the parks using the technologies available today. It would allow over-snow access on all routes currently available via NPS-managed snowcoach only. Other key changes in recreation opportunities are: eliminating winter plowing on the Colter Bay to Flagg Ranch route, making Flagg Ranch a destination via over-snow transport, and eliminating all winter motorized use on Jackson Lake.This alternative addresses the full range of issues regarding safety, natural resource impacts, visitor experience and access. It addresses the issues in a way that would make it necessary for local economies to adapt, and for snowmobile users to access the parks using a different mode of transport. Under alternative A-No Action, current use and management practices in the parks and Parkway continue. The concept under alternative B provides a moderate range of affordable and appropriate winter visitor experiences. Air quality and oversnow motor vehicle sound would be addressed, and by the winter of 2008-2009, strict emission and sound requirements would be required by all oversnow vehicles entering the parks. This alternative also emphasizes an adaptive approach to park resource management, which would allow the results of new and ongoing research and monitoring to be incorporated. Alternative C maximizes winter visitor opportunities for a range of park experiences. Alternative D stresses visitor access to unique winter features in the parks. This alternative emphasizes clean, quiet modes of travel, visitor activities focused near destination areas, and a minimization of conflicts between nonmotorized and motorized users. Under alternative E the protection of wildlife and natural resources is emphasized while allowing park visitors access to a range of winter recreation experiences. Alternative E uses an adaptive planning approach that allows new information to be incorporated over time. Alternative F stresses the protection of wildlife resources by focusing winter visitor activities in YNP outside important winter range for large ungulate species, and closing north and west roads to winter use. For GTNP and the Parkway, this alternative emphasizes the protection of all resources by focusing developments, oversnow motorized trails and zones, and nonmotorized trails and zones in certain areas, while still allowing park visitors opportunities for a range of winter recreational experiences.

The details and impacts of the alternatives are described in this document. They include major long-term beneficial improvements to the protection of geothermal winter range and other park resources, some adverse effects from visitor use activities, and major beneficial improvements to the desired visitor experience for solitude, clean air, and natural quiet. These impacts vary by alternative.

For more information about this document, contact Clifford Hawkes, 12795 West Alameda Parkway, Lakewood, Colorado 80228. The NPS is requesting comments on the plans/FEIS, although it is not legally required to do so. All comments must be received by October 20, 2000 and should be sent to the above address or the email address: yell_winter_use@nps.gov. Comments received after this date will not be considered. Comments transmitted by facsimile machine will not be considered. To meet a deadline in a court-approved settlement agreement for this plans/EIS, the NPS cannot extend the comment period. A full copy of this document is available on the Internet at the National Park Service web site www.nps.gov/planning. Copies are also available at local libraries. Written requests for full copies of the document should be directed to Clifford Hawkes at the address above. Please specify whether you wish a paper copy or a copy on CD ROM.

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SUMMARY

INTRODUCTION

In 1990, a Winter Use Plan was completed for Yellowstone National Park (YNP), Grand Teton National Park (GTNP), and the John D. Rockefeller, Jr., Memorial Parkway (the Parkway). In 1994 the National Park Service (NPS) and U.S. Forest Service began work on a coordinated interagency report on Winter Visitor Use Management. This effort was in reaction to an earlier than expected increase in winter use. The 1990 Winter Use Plan projected 143,000 visitors for the year 2000. In 1992-93 winter use in YNP and GTNP exceeded this estimate.

In 1994, the Greater Yellowstone Coordinating Committee (GYCC), composed of National Park Superintendents and National Forest Supervisors within the Greater Yellowstone Area (GYA), recognized the trend toward increasing winter use and identified concerns related to that use. The GYCC chartered an interagency study team to collect information relative to these concerns and perform an analysis of winter use in the GYA. The analysis, *Winter Visitor Use Management: a Multi-agency Assessment* was drafted in 1997 and approved by GYCC for final publication in 1999. The assessment identified desired conditions for the GYA, areas of conflict, issues and concerns, and possible ways of addressing them. For the final document, GYCC considered and incorporated many comments from the general public, interest groups, and local and state governments surrounding public lands in the GYA.

In May of 1997, The Fund for Animals, Biodiversity Legal Foundation, Predator Project, Ecology Center, and five individuals filed suit in the U.S. District Court for the District of Columbia alleging failures by the NPS to comply with the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), and other federal laws and regulations in connection with winter use in the three national parks. The NPS subsequently settled the suit, in part, by an agreement to prepare a comprehensive environmental impact statement (EIS) addressing a full range of alternatives for all types of winter use in the parks. This is the final environmental impact statement (FEIS) that fulfills that portion of the agreement.

The NPS has prepared the FEIS on its preferred alternative, no action alternative, and five additional alternatives. This Summary outlines the FEIS.

BACKGROUND

The GYA encompasses over 11 million acres and is considered one of the few remaining intact temperate ecosystems on earth. Within the area, YNP comprises 2.22 million acres, primarily in northwestern Wyoming and extending into south central Montana and eastern Idaho. GTNP encompass an additional 310,000 acres and the Parkway includes 24,000 acres both located in Wyoming. YNP and GTNP comprise the strategic core of an upland plateau called the GYA. Portions of six national forests — Gallatin, Custer, Shoshone, Bridger-Teton, Caribou-Targhee, and the Beaverhead-Deerlodge — are within the GYA, as are the National Elk Refuge and Red Rocks National Wildlife Refuge. Public lands make up most of the area (69%). Private lands comprise 24% of the GYA, Indian reservations comprise 4%, and 3% of the lands in the GYA are state lands. The GYA extends across 17 counties in 3 states. Cooperative agreements and interagency planning and coordination aid in managing the area as an ecological unit, while recognizing the different mandates of the land management agencies.

With the national growth in winter activities such as snowmobiling and ski touring, winter visits to the 3 parks have increased from virtually none 30 years ago to more than 100,000 per year by 1980. The parks' winter activities have become an important part of the region's tourism industry. Increased winter use has raised concerns about impacts on park resources and values, and placed significant demands on the parks' facilities, equipment, and personnel. These demands also affect adjacent national forests and local communities. Until recently when increased and new uses appeared, they were addressed according to established NPS policies with little additional funding or personnel. It is now apparent that winter activities are an integral part of the visitor experience in the GYA, and that more specific policies and management direction are needed to guide winter use in the parks and protect sensitive resources.

The outcome of this EIS is the development of a plan for each park addressing existing and potential impacts on resources and values from winter recreational uses. A plan of this sort, termed "programmatic," is general in nature. It is aimed at describing a program for winter use by stating objectives and goals and determining the types of uses that are consistent with those goals. It describes the conditions under which certain activities are acceptable and provides general standards for management. It also provides an overall allocation of lands where certain activities are or are not consistent with objectives.

An EIS is necessary to evaluate alternative choices for plans while revealing the possible environmental impacts of activities that may be included in the plans. Because a plan of this type is general in nature, an analysis of environmental impacts need only be conducted at a general level. The type and amount of data relating to possible impacts is presented at the general level and is not exhaustively detailed and "site-specific." Detailed and site-specific data would be required of analysis for a specific activity, such as the construction of a single facility or the permanent closure of a certain area.

THE PURPOSE AND NEED FOR ACTION

The purpose of and need for action in an EIS is a brief statement specifying the underlying purpose and need to which the agency is responding in proposing the alternatives, including the proposed action. The need to develop a plan through an EIS is indicated by the difference between overall desired condition and the conditions that presently exist. The desired condition reflects the parks' mandates, and is articulated below as a series of general objectives. Documentation of the existing condition is based on parks' monitoring, levels of present winter recreational use, and other information available through the winter visitor use assessment (GYCC 1999). Existing conditions reflect management and public concern about impacts on resources and visitor experiences that conflict with the stated objectives. The final plan will be designed to move the existing condition toward the desired condition.

Desired Condition

Proceeding from the NPS mandates, which include legislation, regulations, executive orders, and governing policies, the following statements summarize the desired condition of the three parks for winter use. These bulleted statements may be viewed as objectives for a new winter use plan:

- Visitors have a range of appropriate winter recreation opportunities from primitive to developed. Winter recreation complements the unique characteristics of each landscape within the ecosystem.
- Recreational experiences are offered in an appropriate setting; they do not take place where they will irreparably impact air quality, wildlife, cultural areas, the experiences of other parks' visitors, or other parks' values and resources.
- High quality facilities are provided in parks to support the need for safety and enhanced visitor experiences.
- Conflicts among user groups are minimal.
- Visitors know how to participate safely in winter use activities without damaging resources.
- Oversnow vehicle sound and emission levels are reduced to protect employee and public health and safety, enhance visitor experience, and protect natural resources.

Existing Condition

Despite interagency cooperative efforts, including working with other federal and state agencies, counties, communities, and a variety of interest groups, many unresolved issues and concerns exist about winter use in the three parks. Land managers, constituencies, and users of public lands disagree about the appropriateness of certain uses, the amount of various uses being provided, and the effects of those uses. These unresolved issues and concerns contrast with the desired condition expressed above, and represent the need for a new plan.

- Visitor Access: Access to most locations is limited to those who can afford to ride a snowcoach or snowmobile. Access for personal motorized use via snowmobile has increased greatly since the beginnings of the winter program in the three parks. Snowmobile use, in current numbers, is in conflict with use of parks' facilities by other user groups.
- Visitor Experience: A variety of winter use conflicts has been identified involving the relationship between users and among different user groups, which affects how people experience the parks. At destination facilities and trails open to both motorized and nonmotorized users, nonmotorized users express dissatisfaction with the sound, odor, and quantity of snowmobiles. These vehicles affect the solitude, quiet, and clean air and other resource values that many people expect and wish to enjoy in national parks.
- Visitor Safety: The current level of snowmobile accidents, unsafe users, inherent winter risks, and conflicts between users are of concern from the standpoint of public safety.
- Resources: Parks have documented health hazards from snowmobile emissions, harassment and unintended impacts on wildlife from groomed trails and their use, degradation of air quality-related values, and impacts on the natural soundscape. Many people strongly object to the degradation of inherent parks' values, as well as how these impacts affect people and their recreational opportunities.

Scope of Analysis — Range of Alternatives Considered

The scope of analysis determines the range of alternatives to be considered. The analysis in the EIS is limited to recreation during the wintertime (about December 15 through March 15, annually).

Geographically, the analysis is limited to recreation management within the boundaries of the three national park units.[1] Recreational use considerations and supporting facilities are limited to those that are technically possible at the present time or are feasible for development and implementation.

The range of alternatives presents options for motorized and nonmotorized winter recreational use in the three park units considering reasonably expected technological improvements in emissions and sound of snowmachines. One alternative must evaluate the impacts of current winter use (per the settlement agreement and CEQ regulations). In this instance, "no action" is interpreted as current management, which is appropriate for programmatic planning.[2]

The scope of the EIS, in terms of the decision to be made, is the winter recreation program. Any winter use may overlap or potentially affect other parks' management concerns. These include wildlife management (particularly bison), concession facilities and their management, and transportation infrastructure. To the extent possible, the impact analysis considers ramifications on other management issues. However, it is not possible in the EIS to evaluate the entire concession program, wildlife program (including animal carrying capacities), or transportation system.

For example, existing facilities for fuel storage and solid waste storage and handling in YNP are inadequate for current winter use levels. Wastewater treatment facilities in YNP are insufficient at current winter and summer use levels. It is not within the scope of this analysis to consider alternatives for improving basic infrastructure needs to increase capacity. This is not feasible in the present fiscal climate, and given current use levels and their impacts on resources. In addition separate analyses are proceeding to bring some of the aging infrastructure into compliance. The scope of this analysis is a programmatic assessment of facilities that are intrinsic to winter recreation experiences and opportunities, such as trails and warming huts.

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[1] As a matter of process under CEQ regulations, the impacts of park management that are known or suspected to occur at other times and places must be disclosed in the EIS. In this EIS, economic impacts outside park boundaries are disclosed in the socioeconomic impacts section. Physical and resource effects are disclosed in the sections on adjacent lands and cumulative impacts.

[2] Many commenters on the DEIS stated that NPS must have a "no action" alternative — meaning no snowmobiling — to have a full range of alternatives, and that the court settlement showed that to be the appropriate course of action. The Park Service's interpretation of "no action" means no change in general management direction from the present. The settlement agreement did not include any concessions to claims by The Fund for Animals, nor did it remove any options within the Park Service's discretion for park management from the range of alternatives to be considered. In approving the settlement agreement, the court asserted that a comprehensive winter use EIS (in accordance with CEQ regulations) would be written.

COOPERATING AGENCIES

The NPS has been joined in the FEIS by nine cooperating agencies: the U.S. Forest Service; the States of Idaho, Montana, and Wyoming; and the Counties of Gallatin and Park, Montana, Park and Teton, Wyoming, and Fremont, Idaho

STATES AND COUNTIES WHERE THE PROPOSED ACTION IS LOCATED

Idaho: Fremont County
Montana: Gallatin and Park Counties
Wyoming: Park and Teton Counties

PUBLIC INVOLVEMENT BEFORE THE RELEASE OF THE DRAFT PLAN AND EIS

Public scoping comments on the Draft Winter Use Plans/EIS for YNP, GTNP, and the Parkway were accepted from April 14, 1998 to July 18, 1998. Scoping brochures were mailed to about 6,000 interested parties, and 12 public meetings were held throughout the GYA and in Idaho, Montana, and Wyoming. In addition to local and regional meetings, four national meetings were held in Salt Lake City, Denver, Minneapolis, and Washington D.C. About 1,998 comment letters were received (about 1200 of these were form letters), from which about 15,000 discrete comments were obtained. Scoping respondents include: businesses; private and non-profit organizations; local, state and federal agencies; and the public at large. Comments were received from 46 states and several foreign countries.

NPS determined from the comments seven major issues to be evaluated by alternatives in the DEIS:

- Visitor use and access
- Visitor experience
- Air quality
- Snowmobile sound
- Human health and safety
- Social and economic impacts
- Natural resources

PUBLIC INVOLVEMENT AFTER THE RELEASE OF THE DRAFT PLAN AND EIS

The Draft Winter Use Plans/EIS was released to the public in July 1999 for a 90-day review period scheduled to end November 30, 1999. This review period was extended until December 15, 1999. Public hearings were held in October 1999 in Idaho Falls, Idaho; Jackson and Cody, Wyoming; West Yellowstone and Livingston, Montana; and Lakewood, Colorado.

By the end of the comment period, NPS had received about 46,500 documents commenting on the Draft Winter Use Plans/EIS – 6,300 unique documents and 40,200 form documents. Each document was numbered, and comment information recorded. This system helped NPS personnel analyze the comments and compose the responses. See Volume III for comments and responses to the DEIS.

Many commenters expressed consternation about the lack of a "no snowmobiling" alternative in the DEIS, and suggested that impact descriptions and data to support the EIS and the preferred alternative were not detailed enough. In some cases the NPS has added information to support the analysis of impacts in this FEIS. Additionally, NPS is engaged in programmatic planning, rather than project-specific planning; therefore analysis and data collection have been conducted on a reconnaissance level. Further, where data is lacking or unavailable even at that level, CEQ regulations provide for the decision process to continue based on best available data and professional application of credible methods.

Many people stated they could not support any of the DEIS alternative "mixes." An inordinate amount of criticism was levied on the preferred alternative — to the point that constructive comments on the other alternatives were greatly lacking. Three additional "alternatives" were proposed: Revised Alternative E (in various forms provided by cooperating agencies and the Blue Ribbon Coalition), the Citizens' Solution (provided by a consortium of conservation groups), and the Natural Regulation Alternative (provided by The Fund for Animals).[3] All such comments were read as the decisions that people would like to see the NPS make, based upon their opinions about impacts and their interpretations about laws.

The body of comment included little substantive information beyond that disclosed in the DEIS, and did not demonstrate that an alternative (or an alternative feature) did not belong in the range of choices available for the decision maker. Given the ability of a decision maker to mix features from the FEIS range of alternatives, much of the criticism in the public comment does not apply to the analysis. Regarding the great amount of comment on the preferred alternative, and perceived lack of justification for it, the NPS responds by saying that such criticism is more appropriately applied to the decision when it is made. In fact, the NPS changed the preferred alternative between draft and final EIS whereupon most of these comments no longer apply.

Some commenters said that the desired conditions or objectives were too general, and that there is no demonstrated need for management change. In effect, such comments missed the real issues that are conveyed by statements of existing conditions. The NPS responds by explaining that this is a programmatic EIS leading to a plan, which is general in nature. In addition issues regarding resource impacts, health and safety, and visitor experience are documented sufficiently by the NPS to indicate the need for major management changes supported by a new plan.

Given the scope of analysis, the NPS developed alternatives (alternative plans) as possible ways to proceed from the current condition toward the desired condition. The NPS maintains that public access during the winter is an appropriate objective to be achieved. Accommodating a variety of recreational uses is also valid. In each case, activities must be evaluated in terms of impacts on parks' resources and values, health and safety, and visitor enjoyment. Alternatives that vary the location, amount and proximity of uses are needed to assess the relative impact or change from the current condition. The EIS expresses impacts or changes in terms that allow people to understand how each alternative satisfies the purpose and need for action. It is unreasonable to expect that all alternatives would address all aspects of the purpose and need equally, or that all alternatives worthy of consideration would have no impacts. In the final analysis, the NPS concludes that the purpose and need for action articulated in the EIS is appropriate, and that the range of alternatives considered in detail is adequate.

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[3] Features of Revised Alternative E and The Citizens' Solution were covered within the DEIS range of alternatives. Certain features were either considered to be implementation details or outside the scope of analysis. The Natural Regulation Alternative, by advocating no motorized access or groomed routes, was considered outside the scope of analysis — although some alternatives close sections of the parks to motorized use, and adaptive management could conceivably result in other sections being closed over time.

It is the responsibility of the NPS decision maker, in this case, the Rocky Mountain Regional Director, to weigh the environmental impacts and benefits of all alternatives (and alternative features) considered in detail in this FEIS against the parks' mandates. The decision maker must consider any other factors that may weigh in the decision, including social and economic considerations and public comments, and make a determination about the best way to meet the need for action. The determination and its rationale must be fully explained in a record of decision. There is no actionable or legal decision made until that time.

ALTERNATIVES

Formulation of Alternatives

The alternatives for the Winter Use Plans and Environmental Impact Statement for Yellowstone National Park (YNP), Grand Teton National Park (GTNP) and the John D. Rockefeller, Jr., Memorial Parkway (the Parkway) were formulated in response to the major issues and concerns raised through public and internal scoping. In addition to the scoping process, the National Park Service (NPS) and the cooperating agencies met in Idaho Falls, Idaho in October 1998 to formulate initial concepts for alternatives. Twenty-five participants and about 10 observers attended the 3-day workshop. Later, similar workshops were held with park staffs in both parks. In total, over 35 alternative concepts were generated from the 3 workshops. For a complete discussion of the concepts generated during the workshops see Appendix A.

The NPS planning team evaluated the concepts in terms of their responsiveness to the major issues and concerns, the decision to be made, and the purpose and need for the Winter Use Plans. The concepts were also evaluated against their adherence to current law, park management guidelines, and NPS mandates and policies. Lastly, each concept was evaluated for its economic and technical feasibility. The concepts that best met the above criteria were packaged into the range of alternatives discussed below. Each alternative proposed considers a different means of achieving the desired condition of the parks in the winter while minimizing impacts to park resources.

Alternative A - No Action

This alternative reflects current use and management practices in the parks and meets the requirement for including a no action alternative in an EIS.[4] Alternative A is a baseline for analysis and reflects existing conditions. Other alternatives are intended to improve the existing condition in one or more major issue areas. Issues associated with alternative A include visitor access difficulties, visitor experience conflicts, unsafe conditions, and resource impacts.

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[4] CEQ 40 Most Asked Questions, question number 3. Where an existing program is being evaluated, "no action" is "no change in management." "No action" may be thought of as continuing with the present course of action until the action is changed. CEQ states that in such instances, "to construct an alternative based on no management at all would be a useless academic exercise."

Alternative B
This alternative provides a moderate range of affordable and appropriate winter visitor experiences. Key changes in recreational opportunities include: plowing the road from West Yellowstone to Old Faithful to allow mass transit access by wheeled vehicles, moving the CDST to a year-round path from Moran to Flagg Ranch, and phasing out snowmobile use on Jackson Lake.

Over the next 10 years, an advisory committee would make recommendations on phasing and implementing sound and emission standards for air quality and motor vehicle sound issues. By winter 2008–2009, strict emission and sound requirements would be required by all vehicles entering the parks. In addition this alternative emphasizes an adaptive approach to park resource management, which would allow the results of new and ongoing research and monitoring to be incorporated as it becomes available. Adaptive management increases the Park Service's ability to solve visitor access and experience issues and resource issues over time. Using the criteria stated within Executive Order (EO) 11644 (as amended) and its implementing regulation (36 CFR 2.18), monitoring results demonstrating disturbance to wildlife or damage to park resources would be cause to implement actions for mitigating these conditions (for example, closure to winter visitor use or trail restrictions).

Alternative C
This alternative provides maximum winter visitor opportunities for a range of park experiences, with emphasis on motorized recreation, while mitigating some natural resource impacts and safety concerns. Key changes in recreational opportunities include: plowing the road from West Yellowstone to Old Faithful to allow access by wheeled vehicles, providing a widened highway corridor to accommodate the CDST, and providing additional groomed trails for both motorized and nonmotorized uses.

This alternative directly addresses issues that arose during scoping about potential impacts of management change on local economies. It shows how the range of winter opportunities could be preserved, applying mitigation primarily in the areas of air quality and sound impacts.

Alternative D
This alternative emphasizes opportunities for visitor access to the unique winter aspects of the parks (for example, geysers, geothermal areas, wildlife, and scenic vistas), and protection of those qualities and natural resources by phasing in clean and quiet modes of travel. It focuses winter visitor activities near destination areas and gateway communities. Key changes in recreational opportunities include: eliminating motorized oversnow access to Yellowstone through its East Entrance, limiting snowmobile use in Grand Teton and the Parkway to the CDST and the Grassy Lake Road, eliminating wheeled-vehicle access from Colter Bay to Flagg Ranch to accommodate oversnow vehicles on the groomed highway surface, and eliminating snowmobile use on Jackson Lake.

Emphasizing uses in different areas of the park minimizes conflicts between nonmotorized and motorized users, and addresses issues about visitor access and experience. Support facilities would have minimal amenities. In this alternative, visitor access routes and timing would be modified to provide safer conditions. Over time, issues regarding impacts on natural resources would be addressed, particularly in Grant Teton and on the east side of Yellowstone.

Alternative E

This alternative emphasizes the protection of wildlife and other natural resources while allowing park visitors access to a range of winter recreation experiences. It uses an adaptive planning approach that allows the results of new and ongoing research and monitoring to be incorporated. Key changes to current recreational opportunities are: eliminating motorized oversnow access in Grand Teton and the Parkway except for use on the Grassy Lake Road and north of Flagg Ranch into Yellowstone, and eliminating all winter motorized use on Jackson Lake.

This alternative addresses the full range of winter use issues in Yellowstone over time, but the current condition would prevail in the short term. Using the criteria stated in EO 11644 (as amended) and its implementing regulation (36 CFR 2.18), monitoring results demonstrating disturbance to wildlife or damage to park resources would be cause to implement actions for mitigating these conditions (for example, closure to snowmobile use). Alternative E calls for instituting an advisory committee to make recommendations about emission and sound standards. Local, county, state, and federal agencies as well as representatives from the snowmobile industry and environmental groups would participate on this committee. In Grand Teton and the Parkway, the full range of issues are addressed more immediately by limiting oversnow motorized use to the north end of the park, thus separating uses and eliminating most resource and visitor experience conflicts relating to snowmobile use.

Alternative F

Alternative F emphasizes wildlife protection. Key changes in recreational opportunities include: eliminating all winter access to Yellowstone's interior through its North and West Entrances, eliminating motorized oversnow access in Grand Teton and the Parkway except for use on the Grassy Lake Road and north of Flagg Ranch into Yellowstone, and eliminating all winter motorized use on Jackson Lake.

For YNP this alternative addresses issues regarding protection of wildlife resources by focusing winter visitor activities near scenic areas in the eastern and southern portions of YNP. These areas are generally outside important winter range for large ungulate wildlife species. In Grand Teton and the Parkway, the full range of issues is addressed by limiting oversnow motorized use to the north end of the park, thus separating uses and eliminating most resource and visitor experience conflicts relating to snowmobile use.

Alternative G - Preferred Alternative

This alternative emphasizes clean, quiet access to the parks using the technologies available today. It would allow oversnow access on all routes currently available via NPS-managed snowcoach only. Other key changes in recreational opportunities include: eliminating winter plowing on the Colter Bay to Flagg Ranch route, making Flagg Ranch a destination via oversnow transport, and eliminating all winter motorized use on Jackson Lake.

This alternative addresses the full range of issues regarding safety, natural resource impacts, and visitor experience and access. It addresses the issues in a way that would make it necessary for local economies to adapt, and for snowmobile users to access the parks using a different mode of transport.

MITIGATION

Alternatives analyzed in this EIS would produce environmental effects, both beneficial and adverse. These are disclosed in Chapter IV. For adverse impacts, additional actions are suggested for the purpose of lessening the magnitude, duration, or intensity of the impact. These actions termed mitigation (defined in 40 CFR §1508.20) are recommended as choices for the decision maker not already included in the alternative.[5] A key mitigation feature for most alternatives is the limitation on snowmobile use in the interim until recreation carrying capacities can be set.

IMPACTS

Table S-1 summarizes the seven alternatives. Table S-2 outlines potential impacts. The FEIS provides detailed explanations of the impacts, descriptions of the methods of impact analysis, and supporting references.

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[5] Many people who commented on the Draft Environmental Impact Statement (DEIS) suggested alternative features or different mixes of alternative features. Some suggestions were appropriate as mitigation for certain types of impacts. Most such suggestions flow logically from the determination of potential impacts disclosed in this EIS. The EPA suggested that limitations on vehicle numbers would be necessary as an approach to addressing air quality impacts because the benefits of alternative technologies would not necessarily offset the impacts of increasing numbers. Some cooperating agencies suggested it would be reasonable to limit numbers as an interim measure until a recreation carrying capacity could be set. Other suggested measures include establishing rationing or reservation systems, permits on a first-come, first-served basis, or other means to limit daily and annual use. If a measure or measures were selected they would become part of the ROD (see *Decision to be Made in* Chapter I).

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Table S-1. Summary of alternatives

ALTERNATIVE A No Action	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D	ALTERNATIVE E	ALTERNATIVE F	ALTERNATIVE G Preferred Alternative
VISITOR USE & ACCESS						
Yellowstone • Maintain current 180 miles of groomed oversnow motorized road • Maintain current 37 miles of groomed nonmotorized • Maintain 76 miles of plowed road (Include Hwy 191 to Cooke City) • Existing winter season from mid December to mid March **GT/JDRMP** • 100 miles plowed road • 33.9 miles groomed motorized trail • 35.6 ungroomed motorized trail or area • 26.4 ungroomed non-motorized trail or area	**All Units** • Increase interpretive opportunities **Yellowstone** • Establish 6 miles of new oversnow motorized trails • Establish 10 miles of new nonmotorized trails • Allow all-wheeled public shuttle vehicle access by plowing the road from West Yellowstone, MT to Old Faithful • Lengthen season by two weeks from the West Entrance • Increase size and number of warming huts and other day-use facilities • Continue scientific studies in re: impacts of winter visitor use and park resources; close selected areas or road segments if no other possible mitigation method **GT/JDRMP** • Establish 6.5 miles of new nonmotorized trail • Continue current & add destination facilities • Provide interpretive ski tours • 5-year phase-out of snowmobiles on Jackson Lake	**Yellowstone** • Establish winter campsites (e.g. Old Faithful area) • Establish 10 miles of new oversnow motorized trails • Establish 20 miles of new nonmotorized trails • Allow all-wheeled private and public shuttle vehicle access from West Yellowstone, MT to Old Faithful • Lengthen season by two weeks in December from West Yellowstone to Old Faithful and two weeks in March from the South Entrance to West Thumb • Plow the road from Mammoth to Norris to Madison mid-Feb to mid-Mar to allow late-season access • Snowcoach only from Norris to Canyon to Fishing Bridge mid February to mid March • Increase size and number of warming huts and other day-use facilities **GT/JDRMP** • Establish 30.4 miles of new oversnow motorized trail • Establish 6 miles of new nonmotorized trail • Allow all-wheeled access by plowing the Moose-Wilson and Antelope Flats Roads • Allow both snowmobiles and snowplanes on Jackson Lake • Continue current & add destination facilities	**All Units** • Increase interpretive opportunities **Yellowstone** • Separate use by establishing 15 miles of new oversnow motorized trails in the W and SW areas, and 6 miles of new nonmotorized trails in the N and NW areas **GT/JDRMP** • Establish 18 miles of new oversnow motorized route by opening road north of Colter Bay to snowmobiles • Continue current & add destination facilities • Increased and enhanced visitor programs facilities and interpretive opportunities	**All Units** • Continue scientific studies in re: impacts of winter visitor use and park resources; close selected areas or road segments if no other possible mitigation method **Yellowstone** • Restrict backcountry skiing to use of designated trails or routes only in important winter range **GT/JDRMP** • Establish 8.6 miles of new nonmotorized trail • CDST eliminated through GTNP • Oversnow motorized uses are eliminated except for Grassy Lake Trail and groomed motorized route north of Flagg Ranch	**Yellowstone** • Close sections of road from the West Entrance to Madison Junction and Madison Junction South to Old Faithful and the road segments from Mammoth south to Norris Junction and from Norris Junction south to Madison Junction • Restrict skiing to use on front-country designated trails. Backcountry use would be prohibited • Winter use season from mid-December to early March **GT/JDRMP** • Same as Alternative E	**All Units** • Increase interpretive opportunities • Snowcoach only travel **Yellowstone** • Groom 11 miles of existing nonmotorized trail **GT/JDRMP** • Continue current & add destination facilities • Establish 4 miles of new nonmotorized trail • Open the road from Colter Bay to Flagg Ranch to snowcoaches • Open Grassy Lake Road to snowcoaches • Close unplowed portion of Moose-Wilson Road to motorized recreation
Local Communities & Adjacent Lands						
All Units • The 1999 Interagency Winter Visitor Use Assessment shows relationships and cooperative programs for winter use in the GYA • NPS visitor contacts are provided at visitor centers in West Yellowstone and Jackson Hole.	**All Units** • Implement information program cooperation with local communities • Establish advisory committee to phase and implement emission standards	**All Units** • Implement information program cooperation with local communities	**All Units** • Implement information program cooperation with local communities	**All Units** • Establish advisory committee	**All Units** • Implement information program cooperation with local communities	**All Units** • Implement information program cooperation with local communities

ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D	ALTERNATIVE E	ALTERNATIVE F	ALTERNATIVE G
Human Health & Safety						
All Units • Over-snow speed limit 45 mph except for the Moran to Flagg Ranch segment, which is 35 mph.	**All Units** • Prohibit late-night oversnow travel 11pm to 5 AM • Implement information and enforcement program **GT/JDRMP** • Separate auto use from snowmachine use by moving CDST to new pathway between Moran and Flagg Ranch • Separate motor and nonmotor uses on interior park road; allow nonmotorized use only Taggert Lake Trailhead to Signal Mountain • Prohibit snowmachine use on CDST 8pm to 5am to allow for groomers	**GT/JDRMP** • Move the CDST to a widened highway shoulder between Colter Bay and Flagg Ranch	**All Units** • Prohibit late-night oversnow travel • Implement information, enforcement program **Yellowstone** • Close East Entrance road • Groom from West Yellowstone to Madison to Old Faithful more frequently **GT/JDRMP** • Move CDST to unplowed road from Colter to Flagg, and to widened highway shoulder Colter to Moran • Nonmotor use only on interior park road	**All Units** • Reduce nighttime oversnow speed limit to 35mph **GT/JDRMP** • Separate motorized and nonmotorized opportunities	**All Units** • Prohibit night oversnow travel, sunset to sunrise **GT/JDRMP** • Same as Alternative E	**All Units** • Prohibit late-night oversnow travel
Natural Resources						
All Units • Enforce current sound standards, 78dB(A) • Bio-lubes and fuels used by NPS	**All Units** • Establish advisory committee • Require new technologies • Phase in more stringent standards for oversnow vehicle emissions • All oversnow vehicle sound emissions must be at or less than 70 dB(A) • Monitor natural resources at current levels of administration, and use regulatory measures when necessary to prevent identified disturbances resulting from winter recreation use **Yellowstone** • Continue scientific studies in re: impacts of winter visitor use and park resources; close selected areas if no other possible mitigation method • Restrict nonmotorized use to designated important winter range **GT/JDRMP** • Phase in motorized use by snowplanes only on Jackson Lake	**All Units** • Enforce current sound standards, 78dB(A) • Manage wildlife same as in Alternative A • Phase in alternative fuel/lube sales to public **Yellowstone** • Provide quiet nonmotorized environment by restricting Norris to Canyon to Fishing Bridge road to snowcoaches mid-Feb to mid-Mar	**All Units** • Oversnow vehicle sound emissions must be at or less than 60 dB(A) • Phase in alternative fuel/lube sales • Phase in more stringent standards for oversnow vehicle emissions **Yellowstone** • Restrict nonmotorized use to designated trails in important winter range, except in the Tower and Mammoth areas **GT/JDRMP** • Allow motorized use by snowplanes only on Jackson Lake (no snowmobiles on Jackson Lake)	**All Units** • Establish advisory committee to recommend emission standards for over-snow vehicles • Monitor natural resources at current levels of administration, and use regulatory measures when necessary to prevent identified disturbances resulting from winter recreation use **Yellowstone** • Restrict nonmotorized use in important winter range **GT/JDRMP** • CDST would be accessed via shuttle from east boundary to Flagg Ranch • Eliminate motorized use on Jackson Lake	**All Units** • Require new technologies for reducing snowmobile emissions as they are developed by industry **Yellowstone** • Close road from West Yellowstone to Madison to Old Faithful from Nov 1-Apr 30 • Allow nonmotorized uses only on groomed trails in frontcountry • Shorten the season by two weeks in March **GT/JDRMP** • Same as Alternative E	**All Units** • Sound emissions must be at or less than 75dB(A), trending to 70 dB(A) • Restrict oversnow motorized travel to snowcoaches which meet best environmental standards • Require new technologies as they are made available • Continue scientific studies in re: impacts of winter visitor use and park resources; close selected areas if no other possible mitigation method **Yellowstone** • Restrict nonmotorized use to designated areas in important winter range **GT/JDRMP** • Disallow all motorized use on Jackson Lake • Close Bighorn Sheep areas to human use

Table S-2. Summary of effects.

ALTERNATIVE A No Action	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D	ALTERNATIVE E	ALTERNATIVE F	ALTERNATIVE G Preferred Alternative
Socioeconomic						
• Social: continued values and beliefs conflicts • No policy related impacts on economics would result under alternative A. • Continued high cost of winter visitor access.	• Negligible to minor effects on local & state economies. • Major negative effect on W.Yellowstone, MT. • Moderate negative effects on total nonmarket visitor benefits (through reduced visitation). • Minor to moderate benefit to low income visitors.	• Negligible to minor effects on local & state economies. • Major negative effect on W.Yellowstone, MT. • Moderate negative effect on total nonmarket visitor benefits (through reduced visitation). • Minor to moderate benefit to low income visitors.	• Negligible to minor effect on local and state economies. • Minor negative effect on total nonmarket visitor benefits (through reduced visitation).	• No short term effects compared to current condition.	• Negligible to minor effect on local and state economies. • Larger, major adverse effect on the economies of W. Yellowstone and Gardiner). • Minor negative effect on total nonmarket visitor benefits (through reduced visitation).	• Minor effect on local and state economies. • Larger, major adverse effect on the economies of small communities within the GYA. • Minor negative effect on total current trip nonmarket visitor benefits (through reduced visitation).
Air Quality and Public Health						
• Continued minor and adverse effects from emissions exposure. • Continued moderate and adverse local effects at major staging areas. • Continued adverse impacts on employees who work at entrances, destination, and staging areas. • Vehicular emissions would continue to cause localized and perceptible visibility impairment near vicinity of the West Entrance, Old Faithful and Flagg Ranch . • Emissions along heavily used roadways would result in localized visibility impairment.	• Major beneficial effects would occur at the West Entrance, Old Faithful and Flagg Ranch due to reduced PM_{10} and CO. • Moderate to minor beneficial effects dye to reduced CO and PM_{10} concentrations at other locations where snowmobiling is permitted, once strict emission requirements are implemented. • Minor beneficial effects due to reduced CO along the Flagg Ranch to Colter Bay roadway and the Teton Park Rd. • Relative to existing condition, improved visibility at West Entrance and Old Faithful. • Vehicular emissions would not cause any perceptible visibility impairment in the vicinity of W. Entrance or along park roadways.	• Major beneficial effects at the W. Entrance and along the roadway to Madison and Old Faithful. • Moderate reductions in CO at the Old Faithful staging area. • Minor reductions in CO at Flagg Ranch and along the road to Colter Bay. • Minor to moderate adverse effects (compared to alternative A) where oversnow vehicles would be permitted. • Relative to existing condition, improved visibility at West Entrance. • Vehicular emissions would not cause any perceptible visibility impairment in the vicinity of W. Entrance or along the roadways. • Perceptible visibility degradation could occur in the vicinity of Old Faithful and Flagg Ranch during periods of high use.	• Moderate and major beneficial effects at the W. Entrance and along the road to Old Faithful. • Increased traffic at Flagg Ranch and on the road to Colter Bay would result in major adverse impacts if mitigating use limits were not implemented. • Moderate beneficial effects would occur where snowmobiling is permitted, once strict emission requirements were implemented. • Improved visibility at W. Entrance and Old Faithful. • Vehicular emissions would cause localized, perceptible, visibility impairment near the vicinity of W. Entrance and in the area around Old Faithful and Flagg Ranch.. • Vehicular emissions along roadways would not result in perceptible visibility impairment.	• In the short term, effects would be the same as described in No Action. • In the long term, negligible to moderate beneficial improvements in air quality near the W. Entrance and other staging areas in YNP--depending on emissions standards required by FACA committee. • Moderate and major beneficial impacts would occur in GTNP due to the prohibition of snowmobiles on the roadway from Colter Bay to Flagg Ranch and Teton Park Road. • Vehicular emissions would continue to cause localized and perceptible visibility impairment near vicinity of the W. Entrance, Old Faithful and Flagg Ranch. • Emissions along heavily used roadways would result in localized visibility impairment.	• Moderate improvements to visibility in W. Entrance vicinity. • Negligible beneficial effects at Old Faithful. • Negligible to minor adverse effects would occur at Flagg Ranch. • Moderate and major beneficial effects to air quality would occur on the road from Flagg Ranch to Colter Bay and Teton Park Road. • Vehicular emissions would not cause any perceptible visibility impairment in the vicinity of W. Entrance or along the roadways. • Perceptible visibility degradation could occur in the vicinity of Old Faithful and Flagg Ranch during periods of high use.	• Major beneficial effects in air quality at the W. Entrance and along the road to Old Faithful. • Minor beneficial effects at Old Faithful and Flagg Ranch due to reduction in CO and major beneficial effects from the reduction of PM_{10}. • Major beneficial reductions in CO and PM_{10} are predicted along the roadway from Flagg Ranch to Colter Bay. • Vehicular emissions would not cause any perceptible visibility impairment in the vicinity of W. Entrance along park roadways or in the vicinity of Old Faithful and Flagg Ranch.
Public Safety						
• Continued minor adverse effects to visitor and employee safety along the road from W. Entrance to Old Faithful and the CDST. • Continued minor to moderate adverse effects on winter visitors and employees who use the E. Entrance.	• Moderate beneficial improvements due to mass transit in YNP and separation of uses in GTNP, including new CDST pathway. • Minor beneficial improvements in the parks due to the introduction of several positive safety-oriented measures.	• Moderate adverse effects in YNP due to the potential for increasing visitor conflicts and vehicle/animal collisions. • Minor improvement due to widened highway shoulder for the CDST.	• Minor beneficial improvements in the parks due to the introduction of several positive safety-oriented measures. • Minor improvement due to widened highway shoulder for the CDST and removal of wheeled vehicle traffic from Colter Bay to Flagg Ranch.	• Negligible improvements, as compared to alternative A, in all three-park units due to oversnow nighttime speed limits. • Moderate beneficial improvements in GTNP due to decrease in oversnow motorized travel and elimination of the CDST in the park.	• Major beneficial improvementsin YNP and GTNP as a result of the nighttime closure and the overall elimination of oversnow travel on north and west side of YNP and the CDST. • Minor to moderate improvements due to backcountry closures.	• Improvements would be major and beneficial, as compared to alternative A, in the parks due to the elimination of all potential snowmobile accidents, implementation of park-wide mass transit system. And removal of wheeled vehicle traffic from Colter Bay to Flagg Ranch.

ALTERNATIVE A No Action	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D	ALTERNATIVE E	ALTERNATIVE F	ALTERNATIVE G Preferred Alternative
Water and Aquatic Resources						
• Deposition into snow pack would continue to occur from two-cycle engine emissions along groomed park roads in YNP and GTNP. • Continued high risk of adverse effects on water quality, wetlands, and aquatic resources where oversnow motorized use closely parallels rivers and other bodies of water (22% of the groomed trail system and on the frozen surface of Jackson Lake).	• Protection through the monitoring and scientific studies provisions. • Moderately decreases the risk of adverse effects on water quality, wetlands, and aquatic resources where oversnow motorized use closely parallels rivers and other bodies of water. Vehicle miles traveled on high-risk segments reduced by 65%.	• Minor improvements on the effects from pollution deposited in the snow by selling ethanol-blend fuels and low-emission lubricants. • Moderately decreases the risk of adverse effects on water quality, wetlands, and aquatic resources where oversnow motorized use closely parallels rivers and other bodies of water. Vehicle miles traveled on high risk segments reduced by 62%. Snowmobiles phased from Jackson Lake.	• Slightly decreases the risk of adverse effects on water quality, wetlands, and aquatic resources where oversnow motorized use closely parallels rivers and other bodies of water (high risk segments along Yellowstone Lake). Vehicle miles traveled on high risk segments reduced by 14%, no snowmobiles on Jackson Lake.	• Same as Alternative A for YNP. • In GTNP, eliminates risk of pollutants entering Jackson Lake. • Protection through the monitoring and scientific studies provisions. If adverse effects occur that cannot be mitigated, the activity specifically causing the effect would be terminated.	• Greatly decreases the risk of adverse effects on water quality, wetlands, and aquatic resources where oversnow motorized use closely parallels rivers and other bodies of water (high-risk segments along the Madison, Firehole, Gardner and Gibbon Rivers and Jackson Lake). Vehicle miles traveled on high-risk segments reduced by 74%. All motorized use eliminated from Jackson Lake.	• Greatly decreases the risk of adverse effects on water quality, wetlands, and aquatic resources where oversnow motorized use closely parallels rivers and other bodies of water. Vehicle miles traveled on high risk segments reduced by 84%. All motorized use eliminated from Jackson Lake. • Protection through the monitoring and scientific studies provisions.
Wildlife - Ungulates						
• Effects of groomed surfaces and plowed roads on animal movements - unknown to what extent any beneficial effects outweigh negative effects. • Effects related to displacement and fragmentation are minor to moderate, adverse, and short-term. • Risk of collisions with snowmobiles are negligible, adverse, and short-term. • Risk of collisions with wheeled vehicles are minor, adverse, and short-term. Effects of nonmotorized use – adverse, minor and short-term. • Effects of unregulated backcountry nonmotorized use on displacement from preferred habitats – adverse, moderate and short-term. Impacts to bighorn sheep in GTNP would be moderate to major and long-term if no mitigation is applied. • Effects from visitor use of winter support facilities on displacement would be adverse, minor, and short-term.	• Effects related to groomed roads would decrease due to the plowing of the road from West Yellowstone to Old Faithful. Plowing may increase road-kill mortalities, but implementation of mass transit would ameliorate effects. • Effects related to snowmobiles would decrease in YNP. In GTNP, separation of the CDST from the roadway may increase collisions and displacement effects. • Effects of nonmotorized use would be negligible; additional routes would not be located in critical areas. • Backcountry uses in certain winter ranges would be restricted or prohibited in YNP; effects would decrease to negligible to minor. Impacts to bighorn sheep in GTNP would remain the same: moderate to major, long-term. • Adaptive management would be employed to adjust management should impacts to wildlife be demonstrated.	• Effects on wildlife associated with oversnow and wheeled vehicles increase. Plowing of the road from Yellowstone to Old Faithful to accommodate private vehicles and the establishment of a groomed snowmobile trail from GTNP's south boundary to Moran along the eastern park boundary may negatively impact ungulates, especially on limited winter range in GTNP. The periodic diversion of the CDST near Jackson Lake could impact moose. • Effects related to nonmotorized activities may slightly increase because more opportunities are provided. Moose may be impacted near the Gros Ventre River in GTNP. • Effects related to backcountry use would remain the same. • More winter facilities proposed, including campsites in YNP; effects would increase.	• Effects of groomed roads and snowmobiles would decrease in both parks. In GTNP, no opportunities for snowmobile use of ungroomed trails would exist. • Effects related to plowed roads and wheeled vehicles would remain the same in YNP and would decrease in GTNP because the road from Colter Bay to Flagg Ranch would not be plowed. • Effects of unregulated backcountry nonmotorized use in YNP on all ungulate species would be negligible to minor due to limitations on backcountry use and closure of the E. Entrance. In GTNP, effects of nonmotorized use on ungulates may increase because more use would be expected in areas where snowmobiling would now be prohibited (e.g., Antelope Flats). • Overall, this alternative decreases the effects on ungulates relative to Alternative A.	• Miles of groomed surface in GTNP greatly decreased, eliminating snowmobile use and its effects, from most of the park. Moose would benefit in GTNP by the elimination of the CDST. Effects would be much lower in magnitude than in Alternative A. Effects in YNP would be the same as Alternative A. • Effects of nonmotorized use in GTNP would decrease in the Antelope Flats area, thus benefiting ungulates near important winter range in the park. • Effects of unregulated backcountry nonmotorized use in YNP on all ungulate species would negligible to minor due to limitations on backcountry use. • Overall, the effects on ungulates are generally the same (YNP) or much less than Alternative A (GTNP). • Adaptive management would be employed to adjust management should impacts to wildlife be demonstrated through ongoing monitoring and research.	• Effects of groomed surfaces and oversnow motorized use are negligible. In YNP, closing the west side of the park protects important ungulate habitat. • Miles of groomed surface in GTNP greatly decrease, effectively eliminating snowmobile use, and its effects, from most of the park. Moose would benefit in GTNP by the elimination of the CDST. • In YNP, all nonmotorized use in the backcountry is prohibited, thus eliminating all effects associated with off-trail travel. • Overall effects would be much lower in magnitude than in Alternative A.	• The effects of groomed surfaces would be decreased in GTNP. Risk of collision due to snowmobiling and late night travel would be nearly eliminated in all parks. Moose would benefit in GTNP by the elimination of the CDST. • Mass transit would greatly reduce vehicle miles traveled and allow for the use of trained drivers. There would be the ability to control how stops are made. This feature would benefit all species. • Effects related to plowed roads would be the same as Alternative A for YNP, and decreased in GTNP due to the elimination of wheeled vehicles north of Colter Bay. • In all parks, restrictions on backcountry travel would minimize effects associated with off-trail travel. Effects on bighorn sheep in GTNP would be eliminated because sheep habitats would be closed to winter use. • Adaptive management would be employed to adjust management should impacts to wildlife be demonstrated.

ALTERNATIVE A No Action	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D	ALTERNATIVE E	ALTERNATIVE F	ALTERNATIVE G Preferred Alternative
Wildlife – Threatened and Endangered Species						
• Effects of groomed surfaces on lynx unknown; negligible to major depending upon lynx abundance/distribution. • Displacement effects of oversnow vehicles adverse, negligible, short-term. • Risk of collision with wheeled vehicles negligible to minor for grizzlies, wolves. • Effects of nonmotorized use adverse, negligible, short-term on bald eagles; no effect on grizzly bears; no known effect on lynx, wolves. • Effects of unregulated backcountry nonmotorized use adverse, minor, short-term on bald eagles; adverse, negligible, short-term on grizzly bears; no known effect on lynx and wolves. • Effects of winter support facilities: adverse, negligible, short-term on grizzly bears; adverse, minor, short-term on wolves.	• Effects would be generally as stated for ungulates.	• Impacts to lynx may increase in GTNP because some of the new groomed routes are in potential lynx habitat (e.g., Two Ocean Lake, and diversions of the CDST). • The new snowmobile route in GTNP may displace ungulates, and consequently wolves, from the southeastern part of the park. • The extension of the winter use season from the S. Entrance to West Thumb, combined with increased winter support facilities may result in more grizzly bear-human conflicts as bears emerge from hibernation.	• Closure and elimination of use on the road from Fishing Bridge to the E. Entrance in YNP would generally benefit all species actively using habitat on the entire east side of the park. • Most other effects are generally the same as Alternative A with the exception of the elimination of unregulated backcountry use in YNP, which decreases effects, and the development of warming huts at Jenny Lake which may increase effects on lynx.	• Slightly decreases the potential effects compared to Alternative A. The elimination of snowmobiling from most of the GTNP would reduce effects associated with packed trails and displacement; restrictions on backcountry travel in YNP may decrease displacement effects associated with off-trail travel. • Adaptive management would be employed to adjust management should impacts to wildlife be demonstrated through ongoing monitoring and research.	• The closure of the winter season after 1 March would minimize the potential for bear-human confrontations and conflicts that could occur after the emergence of grizzly bears in the spring. • Closure of the roads from W. Entrance and Mammoth to Old Faithful would generally benefit listed species habitats on the entire west side of YNP. • In all parks, if protected species activity is detected, park managers can close the area to human activity to mitigate disturbance. • Potential effects would be the same or less than Alternative A.	• Effects related to oversnow vehicles on groomed roads decrease, a potential benefit to all species. Travel would be by NPS-managed snowcoaches having the ability to control stops. • Use of snowcoaches could continue to displace lynx as routes pass through its habitat, but snowcoaches would be fewer in number, slower, and quieter than snowmobiles. • Effects related to plowed roads may decrease impacts to wolves/lynx because wheeled vehicles eliminated from Colter to Flagg. • Earlier opening increases potential for grizzly/human conflicts in YNP. Restrictions in backcountry areas would mitigate impact. • Effects of backcountry travel decrease. • Adaptive management used to adjust activities if impacts to wildlife are found.
Wildlife –Species of Special Concern						
• Effects of groomed surfaces negligible. • Displacement effects of oversnow vehicles would be negligible to minor . • Effects of plowed roads on collisions and displacement would be negligible. • Effects of nonmotorized use in the front country – negligible (wolverines, sagebrush lizard) to minor (swans). In swan habitat, use may cause minor, short-term displacement and avoidance. • Effect of winter support facilities negligible to minor.	• Effects would be generally as stated for ungulates.	• Effects of motorized wheeled vehicles increase in YNP and effects of snowmobiles increase in GTNP. Swans may be affected in YNP as a result of private vehicles stopping near open water habitats. • Effects of nonmotorized activities in the front and backcountry are generally the same as Alternative A. • Effects related to huts increase because the number of proposed huts increase.	• The elimination of unregulated backcountry use in YNP may decrease associated effects. • Closure of the E. Entrance in YNP eliminates the need for avalanche control and thus may benefit wolverines. This closure and elimination of use on the road to Fishing Bridge would generally benefit species actively using habitat on the entire east side of the park. • Other effects generally the same as Alternative A.	• Effects the same as in Alternative A. • Adaptive management would be employed to adjust management should impacts to wildlife be demonstrated through ongoing monitoring and research.	• Closure of the roads from W. Entrance and Mammoth to Old Faithful would generally benefit habitats on the entire west side of YNP, and potential effects on trumpeter swans would be eliminated in those areas. • Effects in GTNP lowered due to great decrease in of snowmobile use. • If protected species activity is known to occur in an area, park managers would close the area to human activity. • For all parks, overall effects are the same or decreased.	• All effects related to snowmobile use would be eliminated. • Effects related to groomed surfaces would decrease in GTNP benefiting martens. • Travel would be by NPS-managed snowcoaches, with the ability to control where and when stops are made. • Effects associated with backcountry use decrease. Bighorn sheep closures benefit wolverines. • Adaptive management would control impacts to wildlife over time.

ALTERNATIVE A No Action	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D	ALTERNATIVE E	ALTERNATIVE F	ALTERNATIVE G Preferred Alternative
Natural Soundscapes						
• Current non-natural sounds impact the soundscape in the three park units. • Moderate to major adverse effects occur because vehicles are audible over more than 200,000 acres, and they are audible more than 50% of the time over more than 26,000 acres. Audibility for more than 50% of the time is greatest from W. Entrance to Old Faithful and from Moran to GTNP south entrance. • The average sound level is highest along these routes and on Jackson Lake.	• Elimination of oversnow vehicles on the road from W. Entrance to Old Faithful would moderately reduce soundscape impacts. • Lowering all snowmachine sound emissions from 78 dB to 70 dB would reduce the area in which vehicles are audible more than 50% of the time by 38%. When implemented this would result in moderate beneficial effects. • Sound levels 4000 feet distant from travel ways would be reduced by a third, overall.	• Elimination of oversnow vehicles on the road from W. Entrance to Old Faithful would moderately reduce soundscape impacts. • The area in which vehicles are audible more than 50% of the time would be increased by 22% resulting in moderate to major adverse impacts on the soundscape. • Sound levels 4000 feet distant from travel ways would be slightly reduced overall resulting in negligible improvements.	• Reduction in snowmobile sound emissions from 78 dB to 60 dB would moderately reduce impacts on the soundscape. • Compared to quiet background conditions, this alternative would reduce by 44% the area in which vehicles are audible more than 50% of the time. Overall this alternative would result in moderate to major beneficial effects on the natural soundscape. • Sound levels 4000 feet distant from travel ways reduced by about half.	• Compared to quiet background conditions, this alternative would reduce the area in which vehicles are audible at all by 16%. This reduction is due to the elimination of winter motorized use on Jackson Lake. • The alternative would not change the area in which vehicles are audible more than 50% of the time. • Sound levels 4000 feet distant from travel ways would be slightly reduced overall resulting in negligible improvements.	• In the absence of mitigating use limits, this alternative would increase by 24% the area in which vehicles are audible more than 50% of the time. This is a result of the shifting of use from closed segments to open segments on the south and east side of YNP. • Sound levels 4000 feet distant from travel ways would be reduced by about a third, overall.	• Elimination of snowmobile sound emissions, and limiting snowcoach dBAs in the short term to 75, long term to 70, would moderately reduce impacts on the soundscape. • Compared to quiet background conditions, would decrease by 47% the area in which vehicles are audible more than 50% of the time. • Sound levels 4000 feet distant from travel ways would be slightly reduced overall.
Visitor Access & Circulation						
• Minor adverse impacts would continue due to the high cost of current winter access to YNP's interior • Parking at some staging areas is filled to capacity during peak use times resulting in minor adverse impacts. • Some conflict between motorized and nonmotorized use occurs.	• All currently accessible areas would remain available for access. • Visitor capacity would remain at levels equal to the no-action alternative • Mass transit shuttle would provide a less expensive means of winter access, a minor to moderate beneficial impact. • Moderate beneficial impact with safe snowmobile access on the CDST. • Grand Loop not available by single means of transport.	• Though plowed roads would allow wheeled vehicle access in YNP, lack of available parking at Madison and Old Faithful would result in moderate adverse effects: overall reduction in winter visitor capacities. • Minor/moderate beneficial impact: safe snowmobile access on the CDST. • Private vehicles would provide a less expensive means of winter access. • Grand Loop not available by single means of transport.	• Minor adverse impacts would continue due to the high cost of winter access to YNP's interior. • Minor adverse due to YNP E. Entrance closure. Winter season visitors using the E. Entrance represent 3% of winter season visitation or approx. 4,100 visitors • Negligible adverse effects to park access would occur in GTNP. Moderate long-term beneficial improvements for safe snowmobile access on the CDST.	• Minor adverse impacts would continue due to the high cost of winter access to YNP's interior. • Short-term access in YNP, remains the same. Long-term effects are unknown and would depend on future management decisions related to area closures. • Access to GTNP in general would not change, although modes of travel in some areas would change. Motorized access on Jackson Lake eliminated.	• Minor adverse impacts would continue due to the high cost of winter access to YNP's interior. • Major long-term adverse effect to current visitor access patterns at YNP due to elimination of two winter entrances. • Effects for GTNP would be the same as alternative E. • The Grand Loop experience would be eliminated.	• Minor adverse impacts would continue due to the high cost of winter access to YNP's interior. •Negligible long-term effects to YNP because level of access is not altered, only the mode of travel. • Minor adverse long-term effects in GTNP would occur because motorized access on Grassy Lake Road and Jackson Lake would be eliminated.

ALTERNATIVE A No Action	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D	ALTERNATIVE E	ALTERNATIVE F	ALTERNATIVE G Preferred Alternative
Visitor Experience - YNP						
• Little or no operational change would occur. Visitation would be influenced by the method of transportation available to visitors. • For visitors who prefer to visit the parks via snowmobile, the visitor experience would continue to be highly satisfactory. • Encounters with park wildlife and scenery would continue to be primary attractions, consequently the overall satisfaction of current winter visitors would remain high. • Current levels of snowmobile emissions and sound levels would continue to detract from critical characteristics of the desired winter experience for many visitors resulting in direct short-term major adverse impacts on visitor experience. • The perceived unsafe behavior of others and the occurrence of visitor conflicts would continue to have direct short-term minor to moderate adverse effects on the experience of some users. • Current motorized use would continue to deter some user groups from visiting or returning to the parks.	• The adaptive management provisions could result in sections of the park being closed to protect resources/values. Visitor opportunities currently afforded in those areas would be eliminated, resulting in direct short-term adverse effects to desired winter visitor experience. Long-term protection of these resources would be a major beneficial effect by providing for future enjoyment. • The reduction of snowmobile emissions and sound levels would in the long term greatly enhance opportunities for solitude, clean air, and natural quiet. This would result in moderate to major beneficial improvements to the desired visitor experience. • Major/moderate adverse effects on desired winter experience for persons who wish to access the park via W. Entrance using oversnow transport. • Plowed road from W. Entrance to Old Faithful could create berms of snow: moderate adverse effects on opportunities to view scenery. • Opportunities to view wildlife and scenery as a solitary experience would be eliminated on the W. Entrance Road for those persons who are limited to motorized travel. • Would provide opportunity for the winter experience at Old Faithful not currently available to park visitors who do not wish to or cannot afford to ride a snowmobile or snowcoach.	• Major to moderate adverse effects on desired winter experience, affecting the current winter visitors who access the park via the W. Entrance using oversnow transport. • The creation of snow berms along plowed roadways could cause moderate adverse effects to scenery viewing opportunities. • The addition of motorized and non-motorized trails would increase opportunities for winter experiences and would result in direct moderate beneficial improvements. • Affects on opportunities for solitude, clean air, and quiet (except during the late season) would be minor to moderate and adverse, except at W. Entrance. • In the vicinity of Old Faithful opportunities for clean air would be moderate and beneficial. • Moderate/major adverse effects due to the increased complexity of park travel. • Visitors, who are unable, cannot afford, or do not wish to ride a snowmobile or snowcoach would have access via private automobile to Old Faithful.	• The reduction of snowmobile emissions and sound levels would, in time, result in moderate to major beneficial improvements in opportunities for solitude, clean air and, natural quiet. • Minor beneficial effect to visitor experience due to greatly increased availability of information, interpretation, and winter programs. • The increase in trail opportunities would provide minor to moderate beneficial effects for all user groups.	• The adaptive management provisions could result in sections of the park being closed to protect resources/values. Visitor opportunities currently afforded in those areas would be eliminated, resulting in direct adverse effects to desired winter visitor experience. Long-term protection of these resources would be a major beneficial effect by providing for future enjoyment. • Negligible to moderate beneficial short-term improvements in opportunities to appreciate clean air, quiet, and solitude from the implementation of the standards set by the FACA committee.	• The elimination of winter opportunities on the road segments connecting the West and North Entrances with Old Faithful would result in major adverse effects on the desired winter visitor experience. • If winter use increases in other areas of the parks minor effects are expected on visitor experience in those areas.	• The adaptive management provisions could result in sections of the park being closed to protect resources/values. Visitor opportunities currently afforded in those areas would be eliminated, resulting in direct adverse effects to desired winter visitor experience. Long-term protection of these resources would be a major beneficial effect by providing for future enjoyment. • Opportunities to view wildlife and scenery as a solitary experience would be eliminated for those persons who are limited to motorized travel. • There would be major beneficial changes relating to safety by eliminating the possibility of snowmobile related motor vehicle accidents. • There would be a minor to moderate beneficial effect to visitor experience due to increased availability of information, interpretation and winter programs. • Opportunities to appreciate clean air would be greatly improved. Where oversnow motorized use occurs, via snowcoach, quiet and clean air would be facilitated by improved motorized technology. • The elimination of snowmobiles would result in major adverse effects to the experiences of visitors who prefer this mode of travel. • There would be a major beneficial effect relative to opportunities for quiet and solitude, for nonmotorized visitors.

ALTERNATIVE A No Action	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D	ALTERNATIVE E	ALTERNATIVE F	ALTERNATIVE G Preferred Alternative
Visitor Experience - GTNP & Parkway						
• Little or no operational change would occur. Visitation would be influenced by the method of transportation available to visitors. • For visitors who prefer to visit the parks via snowmobile, the visitor experience would continue to be highly satisfactory. • Encounters with park wildlife and scenery would continue to be primary attractions, consequently the overall satisfaction of current winter visitors would remain high. • Current levels of snowmobile emissions and sound levels would continue to detract from critical characteristics of the desired winter experience for many visitors resulting in direct short-term major adverse impacts on visitor experience. • The perceived unsafe behavior of others and the occurrence of visitor conflicts would continue to have direct short-term minor to moderate adverse effects on the experience of some users. • Current motorized use would continue to deter some user groups from visiting or returning to the parks.	• The adaptive management provisions could result in sections of the park being closed to protect resources/values. Visitor opportunities currently afforded in those areas would be eliminated, resulting in direct short-term adverse effects to desired winter visitor experience. Long-term protection of these resources would be a major beneficial effect by providing for future enjoyment. • The reduction of snowmobile emissions and sound levels would in the long term greatly enhance opportunities for solitude, clean air, and natural quiet. This would result in moderate to major beneficial improvements to the desired visitor experience. • Moderate beneficial changes in safety by separating user groups within the park, and improving groomed surfaces. • Moderate beneficial impact due to increased availability of winter programs, information, interpretation.	• A full range of winter activities available to enhance opportunities for wildlife/scenery viewing. • Minor beneficial changes in safety due to improvement of the CDST. • Minor adverse effect in locating motorized and nonmotorized uses in close proximity. • Opportunities for use on groomed surfaces increase. • Minor to moderate beneficial effect to visitor experience due to increased availability of information and trailside facilities. • Major adverse effect to opportunities for quiet and solitude. Opportunities to appreciate clean air also adversely affected.	• The reduction of snowmobile emissions and sound levels would, in time, result in moderate to major beneficial improvements in opportunities for solitude, clean air and, natural quiet. • Minor beneficial effect to visitor experience due to greatly increased availability of information, interpretation, and winter programs. • Minor to negligible adverse effects to opportunities for wildlife and scenery viewing. • Major beneficial improvements relating to safety by separating user groups within the park. • Widening the groomed surfaces of the CDST and removing adjacent wheeled vehicle traffic from Colter Bay to Flagg Ranch would be a moderately beneficial effect.	• Wildlife and scenery viewing would remain unchanged for nonmotorized users and automobile occupants. • There would be major beneficial improvements relating to safety by eliminating snowmachines as a source of motor vehicle accidents, except on Grassy Lake road. • There would be major adverse effects on opportunities to participate in oversnow motorized activities. • There would be major beneficial effects relative to opportunities for quiet and solitude by eliminating snowmobiles- except on the Grassy Lake road. • Moderate to major improvements in air quality would result in greater opportunities to appreciate clean air.	• Same as alternative E except for decline in experiential values around Flagg Ranch due to possible displaced motorized oversnow use from YNP.	• The adaptive management provisions could result in sections of the park being closed to protect resources/values. Visitor opportunities currently afforded in those areas would be eliminated, resulting in direct adverse effects to desired winter visitor experience. Long-term protection of these resources would be a major beneficial effect by providing for future enjoyment. • Opportunities to view wildlife and scenery as a solitary experience would be eliminated for those persons who are limited to motorized travel. • There would be major beneficial changes relating to safety by eliminating the possibility of snowmobile related motor vehicle accidents. • There would be a minor to moderate beneficial effect to visitor experience due to increased availability of information, interpretation and winter programs. • Opportunities to appreciate clean air would be greatly improved. Where oversnow motorized use occurs, via snowcoach, quiet and clean air would be facilitated by improved motorized technology. • The elimination of snowmobiles would result in major adverse effects to the experiences of visitors who prefer this mode of travel. • There would be a major beneficial effect relative to opportunities for quiet and solitude, for nonmotorized visitors.

As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

Publication services were provided by Planning and Design Services, Denver Service Center. NPS D-758A, August 2000

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11-8-00